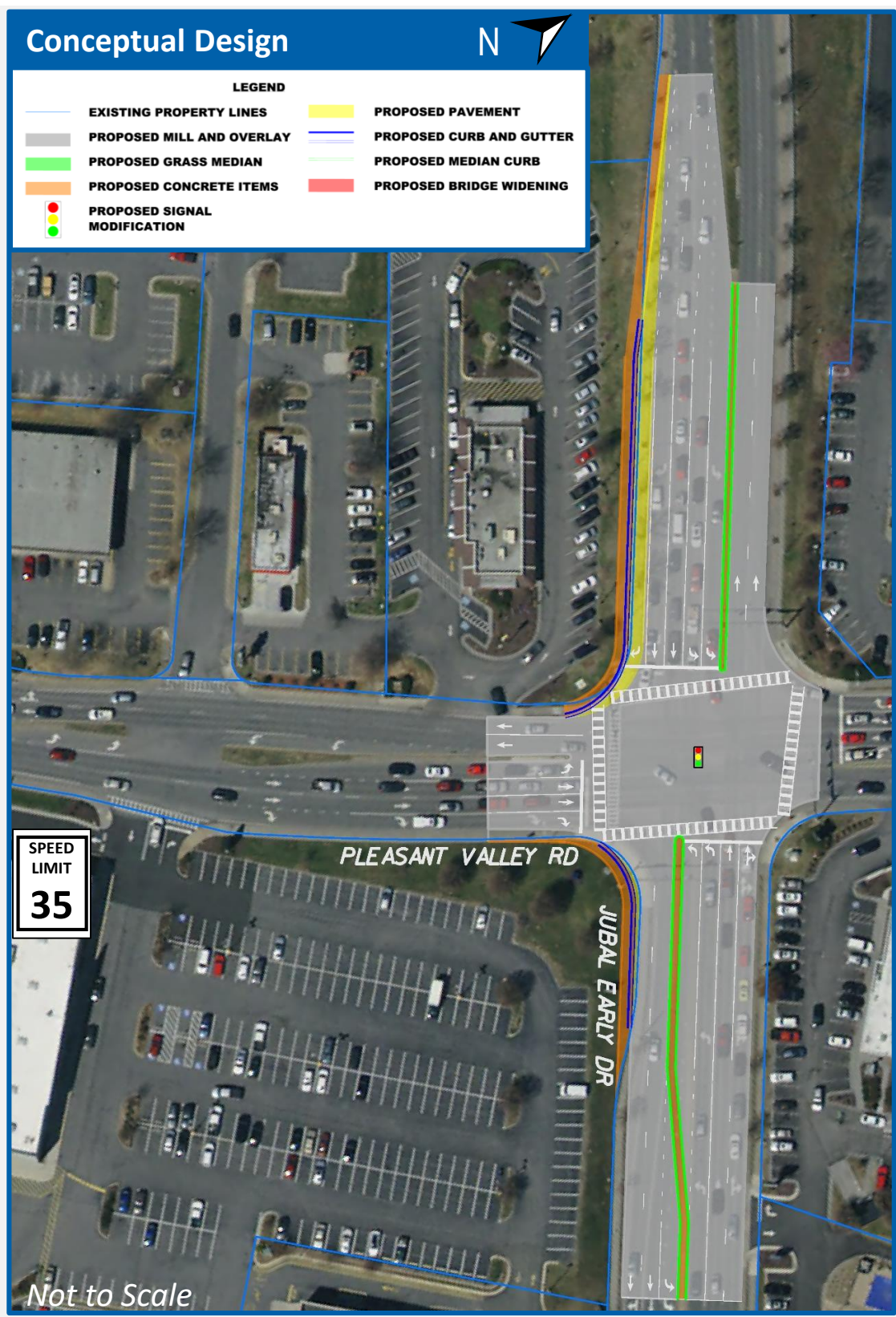


Improvement #6: Jubal Early Drive and Pleasant Valley Road

Add Second Left-Turn Lane on Westbound and Eastbound Approaches



Operations and Safety Improvements

The following recommendations are projected to improve operations and/or safety along Pleasant Valley Road.

Cork Street and Pleasant Valley Road

- Improvement 6:** Add Second Left-Turn Lane on Westbound and Eastbound Approaches
 - ✓ Improves overall intersection LOS from LOS E to LOS D
 - ✓ Improves eastbound approach LOS from LOS F to LOS E
 - ✓ Eastbound left-turn queue length decreases by 56%
 - ✓ Westbound left-turn queue length decreases by 70%
 - ✓ Safety benefit of protected-only left turn movements
 - ✓ Five-year EPDO crashes reduced by 10

Traffic Operations Results

Improvement 6: Jubal Early Drive

Approach LOS: A B C D E F No-Build Build

95th Percentile Queue Length

The following reductions in 95th percentile queue length from No-Build to Build conditions target the areas of biggest need throughout the corridor:

Movement or Approach	No-Build Queue (ft)	Build Queue (ft)	% Reduction
Improvement 6:			
Jubal Early Drive – EBL	#696	#310	56%
Jubal Early Drive – WBL	#545	166	70%
Pleasant Valley Road– NBT	413	356	14%
Pleasant Valley Road– SBT	267	252	6%

95th percentile volume exceeds capacity, queue may be longer

Project Location

Project Schedule & Preliminary Cost

Project schedules and cost estimate were developed based on information available at the time of study and should be reassessed prior to submitting funding applications.

Schedule:

Cost:

Phase	Cost Estimate (2020 Dollars)
Preliminary Engineering	\$700,000
ROW and Utility Relocation	\$870,000
Construction	\$3,490,000
Total Cost	\$5,060,000

Safety Results

Crash modification factors (CMFs) were chosen to project the reduction in all severity crashes weighted to equivalent property damage only (EPDO) crashes.

2014-2019* EPDO	CMF	EPDO Reduction
321	Add turn lane to existing (0.97)	10

* 2019 VDOT crash data was available through July 30, 2019